

REMARKS

This is intended as a full and complete response to the Final Office Action dated October 1, 2003. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1, 4-24 and 74-109 are pending in the application. Claims 1, 4-24 and 74-109 are rejected.

An inventor declaration under 37 C.F.R. § 1.132, signed by Li-Qun Xia, a person skilled in the art, is submitted along with this response.

In the final office action, claims 1 and 4-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 20020068458A1 (*Chiang*), in view of U.S. Patent Publication No. 20020081855 (*Jiang*). The Examiner states that *Chiang* describes a method of thin film deposition for integrated circuit fabrication comprising providing a substrate and treating the substrate with a plasma prior to forming an organosilicate layer. The Examiner further states that *Jiang*, at least in paragraph 13, teaches that the H₂O₂ plasma chemistry is an equivalent plasma chemistry known in the art wherein the plasma is generated in a reaction chamber by applying an electric field to a gas mixture comprising molecular oxygen (O₂) and molecular hydrogen (H₂). The Examiner asserts that it would have been obvious for one of the ordinary skill in the arts at the time of the invention to substitute *Jiang's* method of the H₂O₂ plasma chemistry and wherein the plasma is generated in a reaction chamber by applying an electric field to a gas mixture comprising molecular oxygen (O₂) and molecular hydrogen (H₂) for *Chiang's* process steps to reduce or eliminate the resist poisoning.

Chiang discloses a method to perform an in-situ clean/surface treatment to a surface prior to an ALD deposition. *Chiang* discloses the use of atomic hydrogen or halogen-containing radicals to react with the surface contaminants, such as oxides to form oxygen containing byproducts, which are then easily pumped away (paragraph 25). *Jiang* discloses the use of an oxygen (O₂) plasma to reduce or eliminate the poisoning of resist. *Jiang* further discloses alternative plasma chemistries may be used, such as H₂, H₂O, H₂O₂, O₃, CO, CO₂, SO₂, etc. with or without gas additive like Ar or He (paragraph 13). *Jiang* does not teach that generating a plasma from H₂O₂ or H₂O is an

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